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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,872	11/12/2003	LeNoir E. Zaiser	2173.2005-001	6736
59242 7590 05/12/2008 R.D. JOHNSON & ASSOCIATES, P.C. 20 PICKERING STREET P.O. BOX 920353 NEEDHAM, MA 02492				
EXAMINER				
PATEL, NIHIR B				
ART UNIT		PAPER NUMBER		
3772				
MAIL DATE		DELIVERY MODE		
05/12/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/706,872

Applicant(s)

ZAISER ET AL.

Examiner

NIHIR PATEL

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03.12.2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3, 4, 13, 14, 23-25 and 29-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-53 is/are allowed.
- 6) ☒ Claim(s) 3, 4, 13, 14, 23-25 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 12th, 2008 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims **3, 4, 23 and 24** are rejected under 35 U.S.C. 102(b) as being anticipated by Springer (US 3,522,816).
4. **As to claim 3**, Springer teaches an apparatus that comprises a delivery valve assembly comprising a delivery outlet and a delivery valve member **22** movable within the delivery valve assembly between a closed position and an open position for controlling flow of gas through the delivery outlet (**see figure 1; col. 2 lines 55-65**); a timing gas chamber **26** for receiving gas, gas pressure within the timing gas chamber controlling the movement of the delivery valve member (**see col. 3 lines 50-75**); and adjustment system for controlling the amount of time required for the gas to sufficiently fill the timing gas chamber to control the length of time that the delivery

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valve member is in the open position, the adjustment system including a volume adjustment device for selectively adjusting the volume of the timing gas chamber (see col. 3 lines 50-65).

5. **As to claim 4**, Springer teaches an apparatus in which the volume adjustment device includes an adjustable piston 60 (see figure 1; col. 3 lines 50-65).

6. **As to claim 23**, Springer teaches an apparatus wherein the volume adjustment device includes an adjustable member that can be selectively positioned by the user (see figure 1; col. 3 lines 50-65).

7. **As to claim 24**, Springer teaches an apparatus in which the adjustment system includes an orifice member having more than one orifice, each of a different size, which can be selectively positioned for selecting the flow rate of the gas into the timing gas chamber (see figure 1).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims **13, 14, 25 and 29-31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Springer (US 3,522,816).

11. **As to claims 13, 14 and 29-31**, Springer substantially discloses a method steps of providing a delivery valve assembly comprising a delivery outlet and a delivery valve member **22** movable within the delivery valve assembly between a closed position and an open position for controlling flow of gas through the delivery outlet (**see figure 1; col. 2 lines 55-65**); receiving gas in a timing gas chamber, gas pressure within the timing gas chamber controlling the movement of the delivery valve member (**see col. 3 lines 50-75**); and controlling the amount of time required for the gas to sufficiently fill the timing gas chamber with an adjustment system to control the length of time that the delivery valve member is in the open position, the adjustment system including a volume adjustment device for selectively adjusting the volume of the timing gas chamber (**see col. 3 lines 50-75**).

The method steps would have been obvious because they would have resulted from the use of the device of Springer.

12. **As to claim 25**, Springer substantially discloses the claimed invention; see rejection of claim 3 above, but does not disclose a delivery valve member that is a flexible membrane. It would have been an obvious matter of design choice to provide a delivery valve member that is a flexible membrane in order to make it easier to open and close, since the applicant has not disclosed that having a delivery valve member that is a flexible membrane solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with other types of valves like ball valve or even a diaphragm.

Allowable Subject Matter

13. Claims **32-53** are allowed. The prior art does not teach a vent to exhaust the gas stored in the timing gas chamber to atmosphere and a slave valve disposed between a regulated supply of medical gas and a delivery passage to the patient, the slave valve in gas communication with the timing gas chamber such that when the gas in the timing gas chamber is at the first pressure the slave valve is in a closed position to inhibit the flow of medical gas from the regulated supply to the delivery passage, and when gas in the timing gas chamber is below the first pressure the slave valve is in an opened position to allow medical gas to flow from the regulated supply to the delivery passage.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIHIR PATEL whose telephone number is (571)272-4803. The examiner can normally be reached on 7:30 to 4:30 every other Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nihir Patel/
Examiner, Art Unit 3772

/Patricia Bianco/
Supervisory Patent Examiner, Art Unit 3772